

REMARKS

Applicants respectfully traverse and request reconsideration.

New claim 14 has been added as a dependent claim.

Claims 1-5, 7-9 and 11-14 are pending in the application. Claims 9 and 11-13 have been withdrawn due to a restriction requirement. Claims 1-3, 5 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2003/0030642 to Chen et al. ("Chen") in view of U.S. Patent No. 6,204,859 to Jouppi et al. ("Jouppi"). Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Jouppi and further in view of U.S. Patent Application No. 2004/0169651 to Everitt et al. ("Everitt"). Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Jouppi and further in view of U.S. Patent No. 6,476,807 to Duluk, Jr. et al. ("Duluk").

Claim 1

Applicants' claim 1 requires, among other things, "a pixel appearance determination circuit ... operative to determine a pixel appearance value based on the fragment data by dropping the fragment data having the least effect on pixel appearance, wherein dropping the fragment data further includes assigning the fragment data to be dropped with a no color designation." (Emphasis added). As such, this causes a decrease in the valid sub-sample locations (e.g., from eight to seven) in the final resolution of the pixel. (See e.g., Originally-filed Application, p. 9, ll. 29-30, p. 10, ll. 17-22, and elsewhere). Applicants submit that the current Office Action fails to address assigning the fragment data to be dropped with a no color designation, and therefore the claim is in condition for allowance. In any event, Applicants further submit that no combination of the cited references appears to teach or suggest this limitation. For this reason, claim 1 is also believed to be in condition for allowance.

The Office Action states that “Chen fails to disclose the dropping [of] the fragment data with a ‘no color’ designation.” (Office Action, p. 2). The action further states that “Jouppi further teaches dropping the fragment data with a no color designation (completely transparency).” (Office Action, page 3, emphasis in original). Applicants respectfully submit that the language of claim 1 does not recite “dropping the fragment data with a no color designation.” In contrast, Applicants claim “dropping the fragment data . . . wherein dropping the fragment data further includes assigning the fragment data to be dropped with a no color designation.” (emphasis added). Because the Office Action does not address the claim language, the rejection is improper. In the event that the Office Action is maintained, Applicants respectfully request the Office to issue a non-final Action that specifically addresses the actual language presented by Applicants.

For the sake of argument, Applicants note that Jouppi does not teach assigning the fragment data to be dropped with a no color designation because he teaches using an existing alpha value as the factor to determine whether a fragment is invisible instead of assigning fragment data to be dropped with a no color designation in response to determining that the fragment data has the least effect on the pixel appearance. For example, the Office Action cites column 15, lines 28-33 of Jouppi as allegedly teaching “dropping the fragment data with a no color designation.” Applicants note this particular portion of Jouppi teaches evaluating new fragments of an image and initially determining if each new fragment will be visible in the image. Jouppi states that:

If the new fragment has a smaller Z-depth value than the Z-depth value of a stored fragment for any covered subpixel sample S1-S4, then the new fragment is in front of that stored fragment, and consequently, is visible. An exception, however, is when the new fragment has an Alpha value of 0.0. In this instance the new fragment is completely transparent. The graphics accelerator 108

does not need to store the fragment value of the new fragment because the new fragment is, in effect, invisible. (Col. 15, ll. 25-33).

In other words, Jouppi teaches that a fragment is visible if it passes a Z-depth test based on Z values and if the fragment's existing alpha value is not equal to 0.0. If the fragment is visible, additional analysis is performed to determine whether it should be used to compute the pixel color (See generally, Col. 15, l. 33- Col. 16, l. 26; Fig. 7). However, if the existing alpha value is 0.0 (i.e., the fragment is invisible), the fragment is not stored by the graphics accelerator 108 (e.g., in graphics memory 122); it is discarded. Conspicuously absent from Jouppi is assigning the fragment data to be dropped with a no color designation. Therefore, although the Office Action fails to address Applicants' claim language, the rejection is also improper because the cited portion of Jouppi fails to teach or suggest each and every limitation of Applicants' claim 1.

Because the Office Action fails to address claim language and because the cited portions of the cited prior art fail to teach the subject matter of claim 1, Applicants respectfully submit that claim 1 is in proper condition for allowance.

Claims 2-5 and 7-8

Claims 2-5 and 7-8 are dependent upon allowable claim 1 and further contain additional novel, non-obvious and patentable subject matter. For at least these reasons in addition to those articulated above, claims 2-5 and 7-8 are also believed to be in condition for allowance.

Claim 14

Claim 14 is also dependent upon allowable claim 1 and further contains additional novel, non-obvious and patentable subject matter. For at least these reasons in addition to those articulated above, claim 14 is also believed to be in condition for allowance.

Applicants respectfully submit that the claims are in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. The Examiner is

invited to contact the below listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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